

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference DQIP141/PCT	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US03/28324	International filing date (<i>day/month/year</i>) 09 September 2003 (09.09.2003)	(Earliest) Priority Date (<i>day/month/year</i>) 09 September 2002 (09.09.2002)
Applicant DRIL-QUIP, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 1



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures

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Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

NEW ABSTRACT

A connection structure is disclosed for connecting a riser to a subsea wellhead assembly. The connection structure allows components of the tie-back connector (16) to be assembled over the tie-back connector before the tie-back connector is secured to a long stress joint, to avoid the need to maneuver the components over the long stress joint. High strength materials are used in the construction of the stress joint to minimize the effects of stresses in the wellhead connector. The connection fixture provides electrical insulation (34) between the engagement points of the stress joint and the tie-back connector to minimize corrosive galvanic action. The connection structure provides an upwardly facing flange (18) that may be threaded or otherwise connected to the top of the tie-back connector (18) and is adapted to mate with an secure to a downwardly facing flange (12a) carried at the bottom of the stress joint (12).

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International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : F16L 19/00
 US CL : 285/368, 412, 322

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 285/368, 412, 322

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,554,324 B1 (HERMAN) 04 April 2003 (29.04.2003), figs. 1-4.	1-24
A	US 6,299,216 B1 (09 October 2001) (09.10.2001), figs. 1-12.	1-24
A	US 4,984,830 A (SAUNDERS) 15 January 1991 (15.01.1991), figs. 1-5.	1-24
A	US 4,902,045 A (McGUGAN et al.) 20 February 1990 (20.02.1990), figs. 1-12.	1-24
(X)	US 4,557,508 A (WALKER) 10 December 1985 (10.12.1985), figs. 1-6.	1, 11-12
(Y)	US 4,372,587 A (ROCHE) 08 February 1983 (08.02.1983), fig. 6	3-5
(X)	US 3,418,009 A (POLLIA) 24 December 1968 (24.12.1968), fig. 1.	1-2, 7-8, 13-18
(Y)		3-5, 9
A	US 3,278,202 A (SMITH) 11 October 1966 (11.10.1966), fig. 1	1-24



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

01 June 2004 (01.06.2004)

Date of mailing of the international search report

01 JUL 2004

Name and mailing address of the ISA/US

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
<input checked="" type="checkbox"/>	US 2,833,566 A (MEYER et al) 06 May 1958 (06.05.1958), fig. 2.	----- 9
A	US 2,291,709 A (GOETZE) 04 August 1942 (04.08.1942), fig. 1.	1-24
<input checked="" type="checkbox"/>	US 2,268,385 A (DAVIS et al) 30 December 1941 (30.12.1941), fig. 1.	17, 20-23